DEVICE AND METHODS FOR DETECTING SAMPLES IN A FLOW CYTOMETER INDEPENDENT OF VARIATIONS IN FLUORESCENCE POLARIZATION

ABSTRACT OF THE DISCLOSURE

The invention provides a sample detection apparatus, including a polarized radiation source, flow chamber and signal detector, the flow chamber placed to contact polarized radiation from the polarized radiation source, the signal detector is placed to selectively detect radiation propagated from the flow chamber at about 54.7 degrees from the direction of polarization of the contacted polarized radiation. Also provided is a method of detecting fluorescent intensity for a sample in a flow cytometer independent of anisotropic radiation emission. The method includes the steps of: (a) contacting a sample in a flow cytometer with polarized radiation; and (b) detecting radiation emitted by the sample at about 54.7 degrees with respect to the direction of polarization of the polarized radiation at the point of sample contact.